WHAT IS CLAIMED IS:

1. A method of making a rigid hybrid polyurethane foam, comprising mixing an isocyanate component with a polyol component in the presence of (i) a blowing agent, (ii) at least one polyfunctional (meth)acrylate compound containing an average of at least 2 acrylate or methacrylate groups per molecule and a weight per acrylate or methacrylate group of about 300 daltons or less and (iii) at least one catalyst for the reaction of a polyol or water with a polyisocyanate and subjecting the mixture to conditions sufficient to cause the isocyanate component and polyol component to react and the polyfunctional (meth)acrylate compound to polymerize, thereby forming a rigid hybrid polyurethane foam having a bulk density of 45 pounds per cubic foot (720 kg/m^3) or less.

2. The method of Claim 1, wherein the polyfunctional (meth)acrylate compound contains an average of from 2.5 to 5 acrylate or methacrylate groups per molecule.

3. The method of Claim 2, wherein the polyfunctional (meth)acrylate compound is blended with the isocyanate component prior to mixing the isocyanate component with the polyol component.

4. The method of Claim 3, wherein the isocyanate component includes an isocyanate-terminated prepolymer having an isocyanate-equivalent weight of from about 150 to about 500 and an average functionality of about 2.7 to about 4.0.

5. The method of Claim 4 wherein the volume ratio of isocyanate component plus the polyfunctional (meth)acrylate compound) to the polyol component is from about 4:1 to about 1:4.

6. The method of Claim 5 wherein the prepolymer is made by reacting a polymeric MDI having a free MDI content of from about 10-25% by weight with a polyol.

7. The method of Claim 6, wherein the polyol component includes a polyol having an equivalent weight of about 1000 to about 3000 and a tertiary amine-containing polyol and/or an amine-functional compound.

8. The method of Claim 3 wherein the mixed polyol and isocyanate components are dispensed onto a part and cured in place to produce a foam adhered to the part.

9. The method of Claim 8 wherein the foam is a vibration-dampening, sound-dampening or reinforcing foam.

10. The method of Claim 9 wherein the part is a structural member of a vehicle.

11. A two-component reactive system for making a hybrid polyurethane foam, comprising

(a) a isocyanate component that contains at least one polyisocyanate compound and at least one polyfunctional (meth)acrylate compound containing an average of at least 2 acrylate or methacrylate groups per molecule and a weight per acrylate or methacrylate group of about 300 daltons or less;

(b) a polyol component that contains one or more polyols and an effective amount of a blowing agent;

wherein the system is further characterized by

(i) a volume ratio of isocyanate component to polyol component of between 1:4 to 4:1,

(ii) a ratio of isocyanate groups in the isocyanate component to isocyanate-reactive groups in the polyol component from about 0.8:1 to about 1.5:1 and

(iii) at least one of the isocyanate component or the polyol component contains a catalyst for the reaction of an isocyanate with a polyol or water.

12. The reactive system of Claim 11, wherein the polyfunctional (meth)acrylate compound contains an average of from 2.5 to 5 acrylate or methacrylate groups per molecule.

13. The reactive system of Claim 12, wherein the isocyanate component includes an isocyanate-terminated prepolymer having an isocyanate equivalent weight of from about 150 to about 500 and an average functionality of about 2.7 to about 4.0.

14. The reactive system of Claim 13 wherein the volume ratio of isocyanate component to the polyol component is from about 4:1 to about 1:4.

15. The reactive system of Claim 14 wherein the prepolymer is made by reacting a polymeric MDI having a free MDI content of from about 10-25% by weight with a polyol.

16 The reactive system of Claim 15, wherein the polyol component includes a polyol having an equivalent weight of about 1000 to about 3000 and a tertiary amine-containing polyol and/or an amine-functional compound.